

Our Docket No: 42390P4577D2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
Phillip E. Mattison)	Examiner: Not Yet Assigned
)	
Application No: Not Yet Assigned)	Art Unit: Not Yet Assigned
)	
Filed: Concurrently herewith)	
)	
For: Image Differencing For)	
Digital Photocell Array)	
(as amended herein))	
)	
This application is a divisional of:)	
Application No: 09/307,574)	Examiner: Luu, T.
)	
Filed: May 7, 1999)	Art Unit: 2878
)	

PRELIMINARY AMENDMENT

Box Divisional Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination of the application, Applicant respectfully requests the Examiner to enter the following amendment and to consider the following remark.

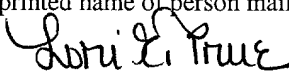
"Express Mail" mailing label number EJ201091207US

Date of Deposit: November 26, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the U.S. Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202.

Lori E. True

(Typed or printed name of person mailing paper or fee)



(Signature of person mailing paper or fee)

AMENDMENT

Presented below are the amendments, with changes entered and not marked.

In the Title:

Please delete the title in its entirety and insert the following in place thereof:

--Image Differencing For Digital Photocell Array--

In the Specification:

Page 1, line 4, after the title "BACKGROUND OF THE INVENTION", please insert the following:

--Cross-Reference To Related Applications--

--This application is a divisional of U.S. Patent Application Serial No. 09/307,574, filed May 7, 1999 and assigned to the assignee of the present application.--

In the Abstract:

Please delete the abstract in its entirety and insert the following in place thereof:

--Under an embodiment, a system includes an array of digital photocells; a plurality of digital holding registers, an output of each digital photocell being coupled to a corresponding digital holding register; and a plurality of subtraction units, a first input of each subtraction unit being coupled to a digital photocell and a second input of each subtraction unit being coupled to the corresponding digital holding register for the digital photocell that is coupled to the first input.--

In the Claims:

1 16. (New) --A system comprising:

2 an array of digital photocells;

3 a plurality of digital holding registers, an output of each digital photocell in the array

4 of digital photocells being coupled to a corresponding digital holding register;

5 and

6 a plurality of subtraction units, a first input of each subtraction unit being coupled to a

7 digital photocell, a second input of each subtraction unit being coupled to the

8 corresponding digital holding register for the digital photocell that is coupled

9 to the first input.--

1 17. (New) --The system of claim 16, further comprising a plurality of digital

2 multiplexers, a first input of each digital multiplexer being coupled to a subtraction

3 unit in the plurality of subtraction units, a second input of each digital multiplexer

4 being coupled to the corresponding digital photocell coupled to the subtraction unit

5 that is coupled to the first input.--

1 18. (New) --The system of claim 17, further comprising an output bus, an output of each

2 digital multiplexer in the plurality of digital multiplexers being coupled to the output

3 bus.--

1 19. (New) --The system of claim 18, wherein a select signal sent to each of the plurality

2 of digital multiplexers chooses either the signals from the array of digital photocells

3 or the signals from the plurality of subtraction units.--

1 20. (New) --The system of claim 19, wherein the select signal choosing the signals from
2 the array of digital multiplexers results in transmission of key frame data for the array
3 of digital photocells.--

1 21. (New) --The system of claim 19, wherein the select signal choosing the signal from
2 the plurality of differential operational amplifiers results in transmission of difference
3 frame data for the array of digital photocells.--

1 22. (New) --A method comprising:
2 transferring a signal from each digital photocell in an array of digital photocells to a
3 corresponding register in a plurality of registers; and
4 determining the difference between a signal from each digital photocell in the array of
5 digital photocells and a signal from the corresponding register in the plurality
6 of registers for the digital photocell.--

1 23. (New) --The method of claim 22, further comprising choosing a set of signals from
2 between:
3 signals from the array of digital photocells; or
4 the difference determined between the signal from each digital photocell in the array
5 of digital photocells and the signal from the corresponding register in the
6 plurality of registers for the digital photocell.--

1 24. (New) --The method of claim 23, further comprising transferring the chosen set of
2 signals to a bus.--

1 25. (New) --The method of claim 24, further comprising transmitting a select signal to
2 determine the chosen set of signals.--

1 26. (New) --The method of claim 25, wherein, if the select signal chooses the signals
2 from the array of digital photocells, then the choice results in transmission of key
3 frame data for the array of digital photocells.--

1 27. (New) --The method of claim 25, wherein, if the select signal chooses the
2 difference between the signal from each digital photocell in the array of digital
3 photocells and the signal from the corresponding register in the plurality of
4 registers, then the choice results in transmission of difference frame data for the
5 array of digital photocells.--

1 28. (New) An apparatus comprising:
2 a digital photocell, an output of the digital photocell representing the light
3 intensity of an area of an image as a pixel value;
4 a holding register coupled to the digital photocell, the register receiving the pixel
5 value from the digital photocell; and
6 a subtraction unit coupled to both the digital photocell and the holding register,
7 the subtraction unit differencing a current pixel value of the digital
8 photocell with a previous pixel value of the digital photocell stored in the
9 holding register.--

1 29. (New) The apparatus of claim 28, further comprising:
2 an output bus; and

3 a multiplexer coupled to the subtraction unit and the digital photocell, the
4 multiplexer selectively providing one of the output of the subtraction unit
5 and the pixel value of digital photocell to the output bus.--

1 30. (New) --The apparatus of claim 29, wherein, if the pixel value of the digital photocell
2 is chosen, then the pixel value is transferred as a part of key frame data on the bus.--

1 31. (New) --The apparatus of claim 29, wherein, if the output of the subtraction unit
2 is chosen, then output is transferred as a part of difference frame data on the bus.--

REMARK

Applicant respectfully requests reconsideration of this application as amended. All existing claims have been cancelled, and claims 16-31 have been added. Therefore, claims 16-31 are present for examination.

Election of Invention

In the parent application, Serial No. 09/307,574, an election restriction requirement was entered. The present application is a divisional application directed to the claims within Group III, which consisted of claims 14-15. For simplicity in examination, the present amendment cancels the existing claims and replaces such claims with new claims.

Title and Abstract

The title and abstract of the application has been modified to conform to the claims herein. The original title and abstract were present before the required election of subject matter in this application and thus do not reflect the current state of the claims.

Conclusion

Applicant respectfully requests examination of the claims presented herein and submits that the claims are in condition for allowance.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Request for an Extension of Time

Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

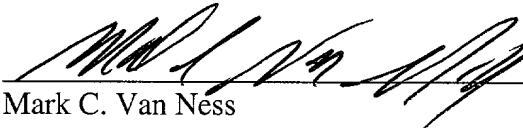
Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 11/26/01



Mark C. Van Ness
Reg. No. 39,865

12400 Wilshire Boulevard
7th Floor
Los Angeles, California 90025-1026
(303) 740-1980

AMENDMENT

Presented below are the amendments, with changes indicated. Insertions are underlined and deletions are bracketed.

In the Title:

Please delete the title in its entirety and insert the following in place thereof:

[New title]

In the Specification:

Page 1, line 4, after the title "BACKGROUND OF THE INVENTION", please insert the following:

[New paragraph]

In the Abstract:

Please delete the abstract in its entirety and insert the following in place thereof:

[New abstract]

In the Claims:

Please amend the claims as follows:

1-15. **Cancel without prejudice***

16-

27. [New claims]